

March 12, 2021



U.S. Department
of Transportation

East Building, PHH-30
1200 New Jersey Avenue S.E.
Washington, D.C. 20590

**Pipeline and Hazardous
Materials Safety Administration**

DOT-SP 20845
(FIRST REVISION)

EXPIRATION DATE: 2025-02-28

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Lithos Energy
San Rafael, CA
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of low production lithium ion battery packs that have not passed the UN-required tests and exceed the 35 kg net weight via cargo-only aircraft. This special permit provides no relief from the Hazardous Materials Regulations (HMR) or the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO TI) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
 - b. The safety analyses performed in the development of this special permit only considered the hazards and risks associated with the transportation in commerce.
 - c. No party status will be granted to this special permit.
 - d. This special permit serves as an "exemption" to Packing Instruction 910 of the ICAO TI Supplement and as an approval under Special Provisions A88 and A99 of the ICAO TI and as a "Competent Authority Approval" as defined under 49 CFR § 107.1.
4. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.

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5. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.185(a) and in that low production battery packs have not passed the criteria in Part III, subsection 38.3 of the UN Manual of Tests and Criteria and 49 CFR § 173.185(b) and Packing Instruction 910 of the Supplement of the ICAO TI in that each battery pack is not individually packed in an inner packaging, as provided herein.
6. BASIS: This special permit is based on the application of Lithos Energy dated March 8, 2019, submitted in accordance with § 107.105 and the public proceeding thereon.
7. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Lithium ion batteries	9	UN3480	N/A

8. SAFETY CONTROL MEASURES:

- a. OPERATIONAL CONTROLS:

(1) Only low production lithium ion battery packs may be offered for transportation under the terms of this special permit. Low production is defined as annual production of not more than 100 battery packs of a particular type.

(2) For purposes of this provision a tested battery pack type is determined in accordance with 38.3.2.2 of the UN Manual of Tests and Criteria.

(3) A "module" of each battery pack must be composed of 288 Samsung (Model INR18650-30Q or Model INR18650-25R) cells and has a maximum energy content of 3.1 kWh.

(4) An authorized battery pack is composed of from two modules (6.2 kWh maximum energy) up to twenty-four modules (88.3 kWh maximum energy).

(5) The battery packs must be offered for transportation at a state of charge not exceeding 30%.

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(6) The battery packs must be equipped with an effective means to prevent dangerous reverse current flow when connected in parallel.

(7) All battery packs must be protected against short-circuiting.

(8) Battery packs must be equipped with a system that has been verified as preventing overcharge, short circuits, or over discharge between the modules.

b. TESTING: All lithium ion cells must be of a type that has passed tests in accordance with the "UN Manual of Tests and Criteria, 5th Revised Edition."

c. PACKAGING:

(1) Each battery pack must have a strong, impact-resistant outer aluminum casing.

(2) The battery pack must be packaged in a strong wooden crate and firmly attached to a pallet.

(3) Not more than one battery pack may be packaged in a wooden crate.

(4) Each package must meet additional requirements in Packing Instruction 910 of the Supplement of the ICAO TI.

(5) The net weight of the battery pack within each package ranges from 43.6 kg (96 pounds) (two module battery pack) to not exceeding 495 kg (1090 pounds) (24 module battery pack).

d. MARKING: Each package covered under the terms of this special permit must be durably and legibly marked and displayed on a background of contrasting color with "DOT-SP 20845."

9. SPECIAL PROVISIONS:

a. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modification or change is made to the package or its contents and it is reoffered for transportation in conformance with this

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special permit and the HMR.

b. A current copy of this special permit must be maintained and made available for examination at each facility where the materials are packaged and offered or reoffered for transportation.

c. This special permit in no way affects the need to obtain any required authorizations from other agencies of the United States Government or from the competent authorities of countries of origin, transit and destination.

d. The special permit holder must maintain a record of all activity conducted under the authority granted in this special permit.

e. The record must contain a complete listing and number of shipments made to include:

(1) Dates of Shipment.

(2) Description of each type of shipment (to include origination/destination).

f. All of the above information must be made available upon request to a DOT representative or an enforcement Official.

g. A battery, battery assembly or monitoring system that is determined to be defective, may not be shipped under this special permit.

10. MODES OF TRANSPORTATION AUTHORIZED: Cargo-only aircraft.

11. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo aircraft, or motor vehicle used to transport packages covered by this special permit. The shipper must furnish a copy of this special permit to the air carrier before or at the time the shipment is tendered.

12. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

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- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
- o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)—"The Hazardous Materials Safety and Security Reauthorization Act of 2005" (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

13. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 - Immediate notice of certain hazardous materials incidents, and 171.16 - Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for William Schoonover
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: Steve H/kah